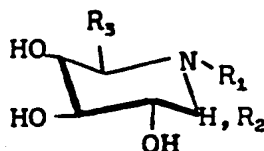


Patent Claims

1. Compounds of the formula



in which

R_1 represents H or an optionally substituted, straight-chain, branched or cyclic saturated or unsaturated aliphatic hydrocarbon radical or an optionally substituted aromatic or heterocyclic radical,

R_2 denotes -H, -OH, -OR', -SH, -SR', -NH₂, -NHR', -N^{R'}_{R''}, NH₂CH₂-, NHR'-CH₂-, NR'R''-CH₂-, -COOH, -COOR', HO-CH₂-, R'CO-NHCH₂-, R'CO-NR''CH₂-, R'SO₂NHCH₂-, R'SO₂-NR''CH₂-, -SO₃H, -CN, -CONH₂, -CONHR' or -CONR'R'', and

R_3 can have the meaning given for R_1 , but preferably represents -H, -CH₃, -CH₂OH, -CH₂-NH₂, NHR'-CH₂-, NR'R''-CH₂-, R'CONH-CH₂-, R'CO-NR''CH₂-, Hal-CH₂-, R'O-CH₂-, R'COOCH₂-, R'SO₂O-CH₂-, R'SO₂NHCH₂-, R'SO₂-NR''CH₂-, R'NH-CO-NH-CH₂-, R'NHCS-NH-CH₂-, R'O-CO-NH-CH₂-, -CN, -COOH, -COOR', -CONH₂, -CONHR' or -CONR'R'',

wherein

R' and R'' can have the meanings given above for R_1 , and wherein

R_1 , in the case where R_3 = -CH₂OH and R_2 = H or OH, is an optionally substituted, straight-chain, branched or cyclic saturated or unsaturated aliphatic hydrocarbon radical or an optionally substituted aromatic or heterocyclic radical, that is to say that R_1 is not H, and

R_1 , in the case where $R_3 = H$ and $R_2 = H, OH, SO_3H, -CN$ and CH_2-NH_2 , is an optionally substituted, straight-chain, branched or cyclic saturated or unsaturated aliphatic hydrocarbon radical or an optionally substituted aromatic or heterocyclic radical, that is to say that R_1 is not H, and

R_1 , in the case where $R_3 = -CH_2-NH_2$ and $R_2 = OH$, is an optionally substituted, straight-chain, branched or cyclic saturated or unsaturated aliphatic hydrocarbon radical or an optionally substituted aromatic or heterocyclic radical, that is to say that R_1 is not H.

2. Compounds according to Claim 1, in which R_1 , R' and R'' designate an alkyl radical with 1 to 30, in particular 1 to 18, C atoms, an alkenyl radical or alkynyl radical with 2 to 18, in particular 3 to 10, C atoms, a monocyclic, bicyclic or tricyclic radical with 3 to 10 C atoms, which can be saturated, mono-unsaturated or di-unsaturated, an aryl radical with 6 or 10 C atoms, or a heterocyclic radical with 3 to 8, in particular 3 to 6, ring members which can contain 1, 2, 3 or 4 heteroatoms, in particular N, O or S, and to which a benzene ring or a further heterocyclic ring of the type mentioned can be fused, it being possible for the radicals mentioned to carry 1 to 5, in particular 1, 2 or 3, substituents.

3. Compounds according to Claim 1 and 2, in which R_2 represents $-H, -OH, -SO_3H, -CN, -CH_2NH_2, -CH_2NH-[C_1-C_6-alkyl]$ or $-CH_2NH-\underset{O}{C}-[C_1-C_6-alkyl]$.

4. Compounds according to Claim 3, in which R_2 represents $-H, -SO_3H$ or $-CN$.

5. Compounds according to Claim 1 and 2, in which R_2 represents $-H$.

6. Compounds according to Claims 1 to 5, in which R_3

represents $-H$, $-CH_2OH$, $-CH_3$, $-CH_2NH_2$, $-CH_2-NH-[C_1-C_6-alkyl]$ or $-CH_2NH-CO-[C_1-C_6-alkyl]$.

7. Compounds according to Claim 1, in which R_3 represents $-CH_2OH$.

8. Compounds according to Claim 1, in which R_2 represents hydrogen and R_3 represents $-CH_2OH$.

9. N-(n-Heptyl)-1-desoxynojirimycin.

10. N-Methyl-1-desoxynojirimycin.

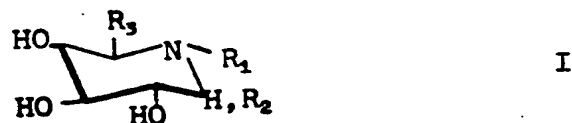
11. N-Ethyl-1-desoxynojirimycin.

12. N-Benzyl-1-desoxynojirimycin.

13. N-(n-Butyl)-1-desoxynojirimycin.

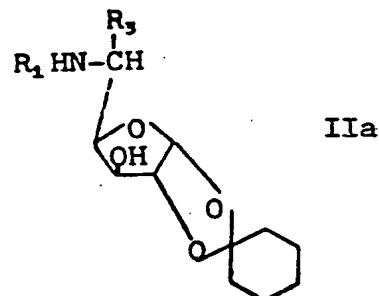
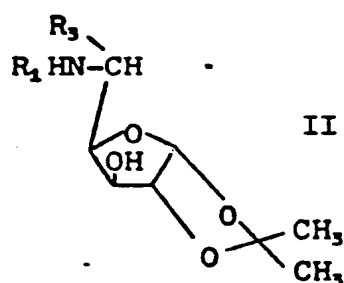
14. N-(β -Hydroxyethyl)-1-desoxynojirimycin.

15. Process for the preparation of compounds of the formula I



in which

R_1 , R_2 and R_3 have the meaning indicated above, characterised in that compounds of the formula II or IIa

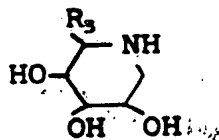


in which

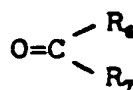
R_1 and R_3 have the meaning indicated above, are subjected to acid hydrolysis, in order to remove the protective groups, and the compounds of the formula I in which $R_2 = -OH$ are isolated as such or optionally reacted to give

further compounds of the formula I.

16. Process for the preparation of compounds of the formula I in which R_1 and R_3 have the meanings indicated above and R_2 represents hydrogen, characterised in that compounds of the formula V



a) are reacted with carbonyl compounds of the formula VI



in which

R_6 and R_7 either denote H or have the meaning indicated above for R_1 or are members of an alicyclic or heterocyclic ring,

in the presence of a hydrogen donor reducing agent, or

b) are reacted with reactive alkylating agents of the formula IX



IX

in which

R_1 has the meaning of alkyl indicated above and Z represents an easily eliminated group which is customary in alkylating agents,

and the mixtures are worked up in the customary manner.

17. Medicaments, characterised in that they contain a compound according to Claims 1 to 14 and, if appropriate, pharmaceutically suitable additives.

18. Process for the preparation of a medicament, characterised in that a compound according to Claim 1 is formulated appropriately using pharmaceutically suitable additives.